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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,849	10/24/2001	Seppo Salminen	309-010322-US (PAR)	6896

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FAIRFIELD, CT 06824

EXAMINER
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PHAM, TUAN

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/998,849

Applicant(s)

SALMINEN ET AL.

Examiner

TUAN A. PHAM

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 6-11, 13-16, 19, 21-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-11, 13-16, 19, 21-28, and 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Applicant's remark, filed on 11/07/2006, with respect to the rejection(s) of claim(s) 1-31 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is further in view of Decker (U.S. Patent No.: 6,040,822).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-2, 4, 6-11, 13, 15-16, 19, 21-28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (U.S. Patent No.: 6,118,986,**

**hereinafter, "Harris" in view of Barkat (U.S. Patent No.: 6,038,457) and further in view of Decker (U.S. Patent No.: 6,040,822).**

**Regarding claims 1, 9, 21, and 23,** Harris teaches a handset comprising (see figure 1, communication device 100):

a housing (see figure 1, first housing 110) having a display (see figure 1, display 102) and first keypad (see figure 3, first key pad 302), the first keypad being removable coupled to the housing (see figure 3, first keypad 302, col.2, ln.45-58);

circuitry within the housing configured to detect a type of keypad attached to the housing (see col.8, ln.50-55, controller 620 detect the type of keypad), the circuitry adapted to interface with the display and the first keypad (see figure 3, figure 6, display 102, first keypad 302); and

a second keypad (see figures 11-12, second keypad 1200), the second keypad exchangeable with the first keypad (see figure 9, col.8, ln.19-43); wherein the second keypad is adapted to replace the first keypad on the housing when the first keypad is removed from the housing and the circuitry detects a first keypad (see figure 3, figure 6, figure 9, col.2, ln.45-58, col.8, ln.19-43).

It should be noticed that Harris fails to teach detecting with different electrical resistance. However, Barkat teaches such features (see figure 1, figure 2, resistor 202, resistor 302, col.1, ln.60-67, col.2, ln.65-67, col.3, ln.1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barkat into view of Harris in order to detect a particular accessory is going to connecting to the mobile phone.

Harris and Barkat, in combination, fails to teach an illumination source, wherein the illumination source illuminates the first and second keypad when the first and second keypad is coupled to the housing. However, Decker teaches such features (see col.2, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Decker into view of Harris and Barkat in order to allow the user to actually see the keys when inputting information as suggested by Decker at col.1, ln.29-35.

**Regarding claim 2**, Harris further teaches the handset wherein the circuitry is adapted to detect whether the first keypad or the second keypad is interfacing with the circuitry (see figure 6, electrical connector 522, controller 620, col.5, ln.10-20, col.6, ln.60-67, col.8, ln.50-56).

**Regarding claim 4**, Harris further teaches the first keypad has a different number of keys than said second keypad (see figure 11-12, telephone keypad 1100, game keypad 1200).

**Regarding claim 6**, Harris further teaches a transparent material (see col.7, ln.55-67).

**Regarding claim 7**, Harris further teaches the handset wherein the first keypad has a larger number of keys than the second keypad and wherein the second keypad has larger keys than the first keypad (see figure 11, 13, keypad 1110, keys 1103, keypad 1300, key 1304-1308).

**Regarding claim 8**, Harris further teaches the first keypad is adapted to be used with a cordless telephone application and wherein the second keypad is adapted to be used with a game application (see figure 11-12, telephone keypad 1100, game keypad 1200).

**Regarding claim 10**, Harris further teaches a handset wherein the first keypad at least partially conceals the telephone keypad (see figure 11, telephone keypad 1100).

**Regarding claim 11**, Harris further teaches the handset wherein the circuitry is adapted to detect whether the first keypad or the second keypad is interfacing with the circuitry (see figure 6, electrical connector 522, controller 620, col.5, ln.10-20, col.6, ln.60-67, col.8, ln.50-56).

**Regarding claim 13**, Harris further teaches the handset wherein the first keypad has a larger number of keys than the second keypad and wherein the second keypad has larger keys than the first keypad (see figure 11, 13, keypad 1110, keys 1103, keypad 1300, key 1304-1308).

**Regarding claim 15**, Harris teaches a method of exchanging a keypad of a cordless handset the method comprising (see figure 3, communication device 100):

providing a housing (see figure 1, first housing 110) having circuitry configured to detect a type of keypad attached to the housing (see col.8, ln.50-55, controller 620 detect the type of keypad), a display (see figure 1, display 102) and first keypad (see figure 3, first keypad 302), the first keypad being removably coupled to the housing (see figure 3, first keypad 302, col.2, ln.45-58);

providing a second keypad (see figures 11-12, second keypad 1200), the second keypad exchangeable with the first keypad (see figure 9, col.8, ln.19-43);

removing the first keypad from the housing (see figure 3, keypad 302, col.2, ln.48-52);

replacing the first keypad with the second keypad on the housing and (see figure 3, figure 6, figure 9, col.2, ln.45-58, col.8, ln.19-43).

electronically sensing (read on detecting) the presence of the second keypad, wherein the sensing the presence of the second keypad comprises sensing of the second keypad (see figure 3, figure 6, figure 9, electrical connector 522, controller 620, col.5, ln.10-20, col.6, ln.60-67, col.2, ln.45-58, col.8, ln.19-43).

It should be noticed that Harris fails to teach detecting with different electrical resistance. However, Barkat teaches such features (see figure 1, figure 2, resistor 202, resistor 302, col.1, ln.60-67, col.2, ln.65-67, col.3, ln.1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barkat into view of Harris in order to detect a particular accessory is going to connecting to the mobile phone.

Harris and Barkat, in combination, fails to teach illuminating the second keypad. However, Decker teaches such features (see col.2, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Decker into view of Harris and Barkat in order to allow the user to actually see the keys when inputting information as suggested by Decker at col.1, ln.29-35.

**Regarding claim 16**, Harris teaches the method of exchanging a keypad further comprising providing circuitry within the housing, the circuitry being adapted to interface with the display and the first keypad (see figure 6, figure 9, display 922, keypad 926, col.5, ln.60-67).

**Regarding claim 19**, White teaches the method of exchanging a keypad further comprising changing a user application of the cordless handset (see figure 11-14, each keypad has predetermined interface for supporting different function such as telephone, game or fax, col.8, ln.19-56).

**Regarding claim 22**, Harris further teaches the device wherein the user interface has a predetermined interface characteristic corresponding to the predetermined characteristic of the device (see figure 11-14, each keypad has predetermined interface for supporting different function, col.8, ln.19-56).

**Regarding claim 24**, Harris further teaches the device wherein when the interchangeable user interface is interchanged with another of the number of different interchangeable user interfaces the device is changed from a first application to a second application (see figure 11-14, each keypad has predetermined interface for supporting different function such as telephone, game or fax, col.8, ln.19-56).

**Regarding claim 25**, Harris teaches an apparatus comprising a first keypad (see figure 3, keypad 302) for use with a handheld electronic device (see figure 3, communication device 100) having electrical resistance measuring circuitry (read on electrical contact 315)(see figure 3, electrical contact 315, col.5, ln.10-20), the keypad comprising a indicative of the type of the keypad (see figure 6, electrical connector 522,



controller 620, col.5, ln.10-20, col.6, ln.60-67, col.8, ln.50-56), the keypad being adapted to removably engage the device (see figure 3, removable user interface 300, keypad 302, col.2, ln.49-55).

It should be noticed that Harris fails to teach detecting with different electrical resistance. However, Barkat teaches such features (see figure 1, figure 2, resistor 202, resistor 302, col.1, ln.60-67, col.2, ln.65-67; col.3, ln.1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barkat into view of Harris in order to detect a particular accessory is going to connecting to the mobile phone.

Harris and Barkat, in combination, fails to teach an illumination source illuminating said keypad when said keypad engages said device. However, Decker teaches such features (see col.2, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Decker into view of Harris and Barkat in order to allow the user to actually see the keys when inputting information as suggested by Decker at col.1, ln.29-35.

**Regarding claim 26**, Harris further teaches a second keypad for use with said handheld electronic device, said second keypad comprising a second electrical resistance indicative of the type of said second keypad, said second electrical resistance being different from said first electrical resistance, said second keypad being adapted to removably engage said device (see figure 3, figures 11-14, first keypad for 1100 for phone interface, second keypad 1200 for game, the keypads 1100 and 1200

are having a different electrical resistance for the controller 620 detects the different type of keypad such as telephone or game when that is inserted to the communication device 100, col.5, ln.10-20, col.6, ln.60-67, col.8, ln.50-56).

**Regarding claim 27**, Harris further teaches a display (see figure 1, display 102).

**Regarding claim 28**, Harris further teaches the first keypad has a different number of keys than said second keypad (see figure 11-12, telephone keypad 1100, game keypad 1200).

**Regarding claim 30**, Harris further teaches a transparent material (see col.7, ln.55-67).

**Regarding claim 31**, Harris further teaches the handset (see figure 1).

**Regarding claim 32**, Harris further teaches the first keypad is adapted to be used with a cordless telephone application and wherein the second keypad is adapted to be used with a game application (see figure 11-12, telephone keypad 1100, game keypad 1200).

**4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (U.S. Patent No.: 6,118,986, hereinafter, "Harris") in view of Barkat (U.S. Patent No.: 6,038,457) and further in view of Decker (U.S. Patent No.: 6,040,822) as applied to claim 9 above, and further in view of White et al. (U.S. Patent No.: 6,532,152, hereinafter, "White").**

**Regarding claim 14**, Harris, Barkat, and Decker, in combination, fails to teach a handset comprises a camera interface. However, White teaches such features (see col.9, ln.43-45, read on video capture).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of White into view of Harris, Barkat, and Decker in order to provide the video function for the communication device.

### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Winters et al. (U.S. Patent No. 6,362,976), Kaschke (U.S. Patent No. 5,898,933), Montgomery, Jr. (U.S. Patent No. 6,205,343), and Lemley (U.S. Pub. No. 2002/0168947) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2618

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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Art Unit 2618  
January 5, 2007  
Examiner



Tuan Pham

Supervisory Patent Examiner  
Technology Center 2600



Matthew Anderson